

REMAP CHECKLIST

I. BACKGROUND:

The Environmental Monitoring and Assessment Program (EMAP) is a multi-pronged research approach to the development and utilization of ecological monitoring as a necessary and critical component of environmental management and protection. The Regional Environmental Monitoring and Assessment Program (REMAP) is an integral part of this program. Through REMAP, each of the Environmental Protection Agency (EPA) Regional Offices (1-10) and Office of Research and Development (ORD) work in partnership to evaluate and improve the EMAP approach as a tool for providing information on the condition of our nation's environment in a manner directly applicable to resource managers. The goals for REMAP are as follows:

Assist in incorporating the latest science on ecological monitoring into the Regional, State, Tribal and local decision-making process

Advance the science of ecological monitoring as a tool for Regional, State, Tribal and local problem formulation in risk assessments and measure the ecological results of risk management option selection

The selection and development of REMAP projects is a collaborative effort between ORD and the Regional Offices. The criteria for selecting projects is based on the goals of the program. Because one of the goals is to assist in incorporating the latest science into the decision-making process, proposed REMAP projects must address real regional environmental issues where the results of ecological monitoring will influence resource management decisions.

Advancing the state of science of ecological monitoring is another goal of REMAP. To be considered for this program, projects must propose approaches to make incremental improvements in monitoring techniques. These improvements may include, but are not limited to, the application of existing or new techniques to new types of problems, testing and development of new indicators, verification of techniques and approaches as applied to previously untested environmental settings, application and evaluation of data analysis and presentation methods, and methods for identifying probable causes of existing environmental conditions. Advancing the state of the science also relies on the use of good scientific practices so that the information obtained will be accepted by the scientific (as well as the decision-making) community.

An important aspect of the REMAP program is that it is intended to introduce and help institutionalize new and improved approaches to ecological monitoring. ORD's EMAP program has helped develop and demonstrate important aspects of these new approaches. Included are alternative approaches to designing and analyzing monitoring programs so that the results are statistically valid and can be used to characterize environmental conditions with known levels of

confidence. Much of EMAP's success is the result of the application of probability based sampling designs. As part of a multi-agency Committee on Environmental and Natural Resources (CENR) effort, EMAP will be participating in research to develop mechanisms for integrating these probability based results with those obtained from more site-specific intensive monitoring programs. REMAP projects must be conceived and implemented so that they are consistent with this approach and provide information that can be used in future integrated regional or local studies.

The outcome of the REMAP studies is both an assessment related to the specific study question, and the production of data sets specific to the study. The data from R-EMAP studies, along with the required metadata, should be electronically available at or near the time of the final report publication. The data sets and accompanying metadata for the specific REMAP project can either be sent to the Atlantic Ecology Division for addition to the REMAP Web site (<http://www.epa.gov/emap/>) or incorporated into a Regional or State database that can be directly linked to the EMAP Web site. If the latter approach is used, arrangements must be made for long-term archival. ORD will provide written guidance on the federal data and metadata standards that must be followed. ORD will also assist the region and its partners in determining an approach to ensure that this data capture occurs.

The Proposal selection process includes submission of Preproposals by the EPA Regional Offices that are subsequently reviewed by EPA's Office of Research and Development's Scientists (i.e., the ORD-Wide Working Group). The focus of this phase of the review process is to verify that the proposed projects are consistent with the EMAP concepts. Pre-proposals are to be no longer than three (3) pages (NOTE: Three pages are allowed in the Implementation Plan) and should clearly explain the basic elements of the proposed approach. Those Preproposals considered to be consistent, are then selected for development into Full Proposals. This technical review of these proposals is an important step before funding decisions are made. After concurrence by the ORD-Wide Working Group, the Preproposals are developed into Full Proposals based upon the following Guidelines/Checklists.

II. PreProposal Development Checklist:

In order to understand the background, goals, and criteria for selection of pre-proposals and full proposals please review this year's implementation plan which describes the focus of the yearly program. Preproposals need not be more than (three) 3 pages in length, but must include the following information:

- 1) Cover Memorandum from the Regional Administrator (or Designate) transmitting the Preproposal packages to ORD (MED);

- 2) Each Preproposal (not to exceed three (3) pages in length) should include the following information:
 - a. Project Description:
 - i. Purpose; and
 - ii. Rationale/need, including consistency with Regional Strategy
 - b. Project Objectives:
 - i. State as questions or hypotheses
 - c. Approach:
 - i. General approach-what is to be done;
 - ii. Basic design of project; and
 - iii. Specific measurements that will be monitored
 - d. Time-line and potential Product Deliverables and Reports
 - e. Participants and partners under proposed work
 - f. Budget
 - i. Estimated project cost; and
 - ii. In-kind services, and other potential sources of support.

III. Preproposal Submission and Review:

The Preproposals are submitted via e-mail to the REMAP Coordinator (MED) who distributes them to the ORD-Wide Working Group for review. Comments and questions are distributed via e-mail to the REMAP Coordinator who reviews them for duplication and relevance to the information found in the REMAP Implementation Plan and Reviewers Guidelines document. Once there is concurrence between the Authors of the Preproposals, the EPA Regional Offices, and ORD's -EMAP Working Group, the EPA Regional Offices are asked to start the development of the Full Proposals. At the same time, a solicitation is made for ORD Project Officers (PO) for those projects which do not yet have a PO. The ORD PO is an integral part of the REMAP team and works with the EPA Regional Offices to ensure that the objectives of EMAP and the REMAP programs are met; and who assists in the development and Peer Review of the Full Proposals.

IV. Full Proposal Checklist:

As outlined in the REMAP “Reviewers Guidelines” document, each Full Proposal should contain the following information:

1. Title Page
2. Table of Contents
3. Project Description--purpose, rationale, importance to the science of environmental monitoring and an overview of the project.
4. Project Objectives--specific questions/hypotheses, specify precision, accuracy, completeness, representativeness, and comparability of data required to meet objectives.
5. Technical Approach:
 - A. Overview of approach;
 - B. Statistical design--sampling procedures and protocols;
 - C. Sample tracking/custody procedures;
 - D. Analytical procedures--referenced, complete procedures in Appendix A;
 - E. Internal quality control checks and frequency;
 - F. Performance and systems audit procedures and frequency;
 - G. Preventative maintenance schedules and procedures;
 - H. Data reduction, validation, management, and reporting procedures; including R-EMAP Information Management Reporting Requirements; and
 - I. Specific procedures for assessing precision, accuracy, and completeness of data
6. Schedule, Milestones, Products and Final Reports
7. Budget--two years, specifying personnel costs, equipment costs, overhead costs---and cost-sharing by Regional Office and Cooperators
8. Personnel Qualifications, Project Management Structure, Personnel Time Commitments, and Personnel Responsibilities
9. References

10. Appendices:

A. Analytical Methods

B. Field Methods

C. Personnel Resumes

V. Steps to Final Funding:

During the EPA required Peer Review period, the ORD PO begins preparing the funding package which will be either an Interagency Agreement, a Cooperative Agreement, or a Contract. Each of these mechanisms has associated requirements (forms/documents) which must be completed before funding.

In general, a funding package consists of the following documents (see attached Matrix Table for details about each type of funding package):

< Memorandum of recommendation to fund *(MED)

< Decision Memorandum (PO)

< Funding Order (PO)

< Commitment Notice (MED)

< Internal and External Peer Reviews (PO)

< Environmental Review Form (PO)

< QA/QC Review Form (PO)

< Copy of Applicant's Full Application (PO)

* Organization/Individual in parentheses is responsible for preparing this document, and/or completing this activity.

Note that the above documents are not needed if money is being placed into existing Contracts previously funded by EPA. Some regions (IV)) fell into this category in FY 2000. If you have questions on administrative issues contact Craig Johnson at MED (218 529-5016).

REMAP/ORD FUNDING PACKAGE MATRIX

Requirement	Responsibility	COOPs	IAGs	Contracts
Decision Memorandum	PO	U	U	
Funding Order	PO	U EPA 5700-14	U IAG/amendment 1610	
Special Conditions	PO	U	terms & U conditions	terms & U conditions
EPA 2550-9 Commitment Notice/REQL	MED	U	U	U
Peer Reviews	PO	U	U	U
EPA 5300-23 Environmental Review Form	PO	U	U	U
EPA 5300-2B Quality Assurance	Applicant	U	U	U
Full Application	Applicant/PO	U	work plan	statement of work (SOW) work assignment or delivery order
R-MAP coor. recommendation to fund	MED	U	U	U

Examples of the funding packages can be obtained by contacting Joseph DLugosz at MED (218 529-5215).